California Cooperative
Snow Surveys
Bulletin 120-4-96

State of California
The Resources Agency

Department of
Water Resources

Water Conditions in California

Report 4 May 1, 1996

Pete Wilson
Governor
State of California

Douglas P. Wheeler
Secretary for Resources
The Resources Agency

David N. Kennedy
Director
Department of Water Resources

STATE OF CALIFORNIA
Pete Wilson, Governor

THE RESOURCES AGENCY
Douglas P. Wheeler, Secretary for Resources

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COOPERATING AGENCIES

Public Agencies
Buena Vista Water Storage District
Central California Irrigation District
East Bay Municipal Utility District
Friant Water Users Association
Kaweah Delta Water Conservation District
Kern Delta Water District
Kings River Conservation District
Lower Tule River Irrigation District
Merced Irrigation District
Nevada Irrigation District
North Kern Water Storage District
Northern California Power Agency
Oakdale Irrigation District
Omochumne-Hartnell Water District
Oroville-Wyandotte Irrigation District
Placer County Water Agency
South San Joaquin Irrigation District
Tri-Dam Project
Tulare Lake Basin Water Storage District
Turlock Irrigation District
Yuba County Water Agency
West Basin Municipal Water District
Private Organizations
J.G. Boswell Company
Kaweah River Association
Kings River Water Association
St. Johns River Association
Tule River Association
State Water Contractors
Municipalities
City of Bakersfield
  Water Department
City of Los Angeles
  Department of Water and Power
City and County of San Francisco
  Hetch Hetchy Water and Power
State Agencies
California Department of Forestry & Fire Protection
California Department of Water Resources
Federal Agencies
U.S. Department of Agriculture
  Forest Service(14 National Forests)
  Pacific Southwest Forest and Range Experiment Station
  Resource Conservation Service
U.S. Department of Commerce
  National Weather Service
U.S. Department of Interior
  Bureau of Reclamation
  Geological Survey, Water Resources
  National Park Service(3 National Parks)
U.S. Department of Army
  Corps of Engineers
Other Cooperative Programs
Nevada Cooperative Snow Surveys
Oregon Cooperative Snow Surveys

SUMMARY OF WATER CONDITIONS

May 1, 1996

Water conditions improved slightly during April with above average precipitation in most Northern California mountain watersheds. Snowmelt during April started slowly but as the month ended unseasonably warm weather caused a surge in snowmelt to boost April runoff above average. The water supply outlook this year is excellent.

Forecasts of April through July runoff are slightly over average except in the north. The highest percentages are in the higher elevation basins of the central and southern Sierra. Runoff forecasts for the water year are about 5 percent higher statewide because of a relatively wet winter.

Snowpack water content is 95 percent of average overall and about 75 percent of the April 1 average. There is a gradient from north to south; northern regions are less than average while the southern mountain regions are well over average. Last year on May 1 the pack was a whopping 215 percent of average.

Precipitation statewide during April was about 130 percent of average, wetter in the north and drier than average in the south. Seasonal precipitation remains at 110 percent of average, compared to 165 percent one year ago.

Runoff so far this year is about 125 percent of average compared to 170 percent last year. April runoff was estimated to be 125 percent of average also. Estimated April runoff for the 8 major rivers within the Sacramento and San Joaquin hydrologic regions was 4.0 million acre-feet.

Reservoir Storage is excellent at 120 percent of average, exceeding last years 110 percent figure. Total storage in the State's 155 major reservoirs was 32.9 million acre feet, (87 percent of capacity), which is the highest amount ever reported for May 1.

SUMMARY OF WATER CONDITIONS

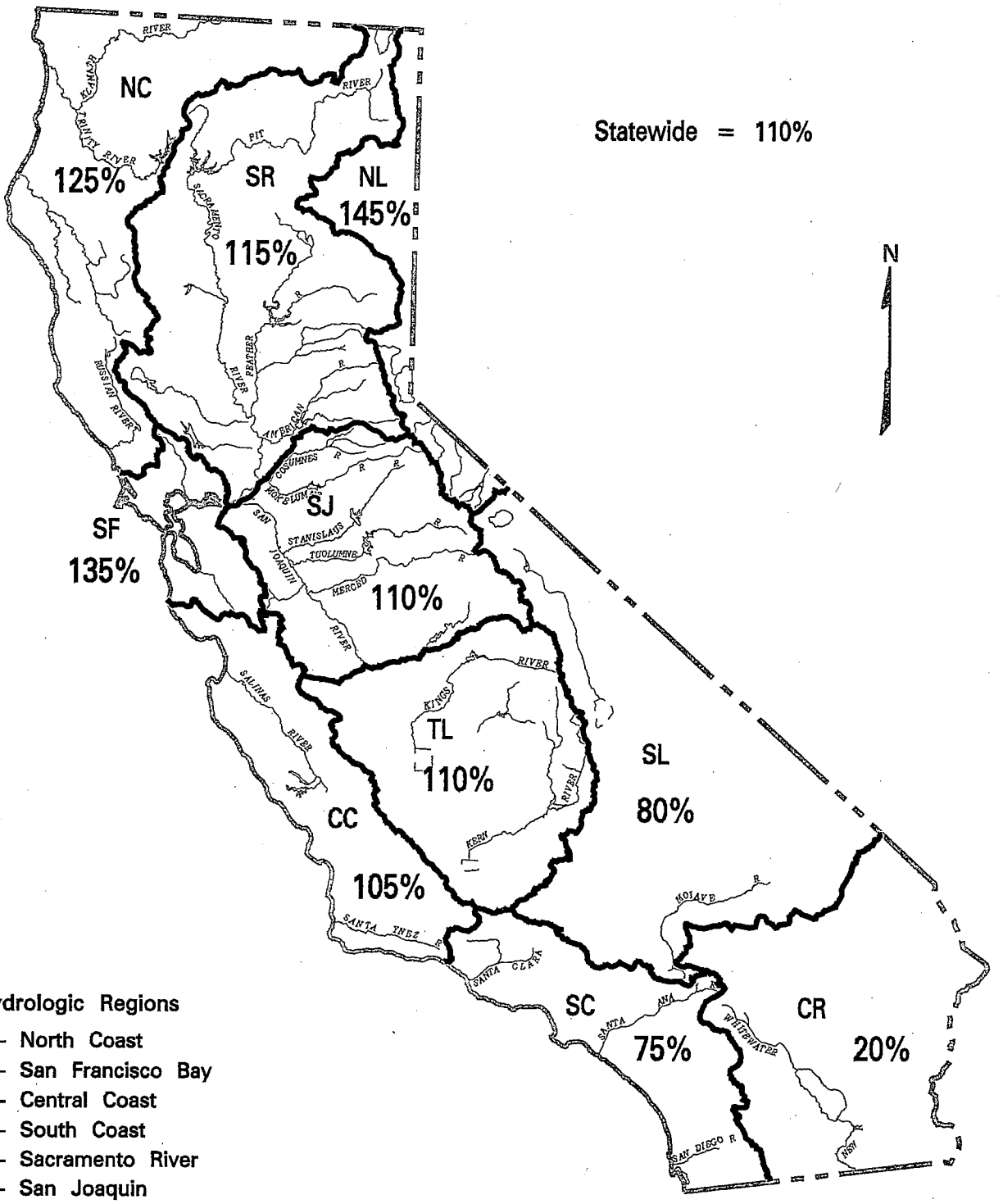
IN PERCENT OF AVERAGE

HYDROGRAPHIC REGION	PRECIPITATION OCTOBER 1 TO DATE	MAY 1 SNOW WATER CONTENT	MAY 1 RESERVOIR STORAGE	RUNOFF OCTOBER 1 TO DATE	APR-JULY RUNOFF FORECAST	WATER YEAR RUNOFF FORECAST
NORTH COAST	125	65	110	125	80	110
SAN FRANCISCO BAY	135	--	125	165	--	--
CENTRAL COAST	105	--	115	105	--	--
SOUTH COAST	75	--	125	90	--	--
SACRAMENTO REGION	115	80	115	120	105	115
SAN JOAQUIN REGION	110	105	125	135	115	125
TULARE LAKE REGION	110	100	170	135	120	120
NORTH LAHONTAN	145	125	145	150	125	130
SOUTH LAHONTAN	80	130	90	120	130	125
COLORADO RIVER-DESERT	20	--	--	--	--	--
STATEWIDE	110	95	120	125	110	115

SEASONAL PRECIPITATION

IN PERCENT OF AVERAGE TO DATE

October 1, 1995 through April 30, 1996



Hydrologic Regions

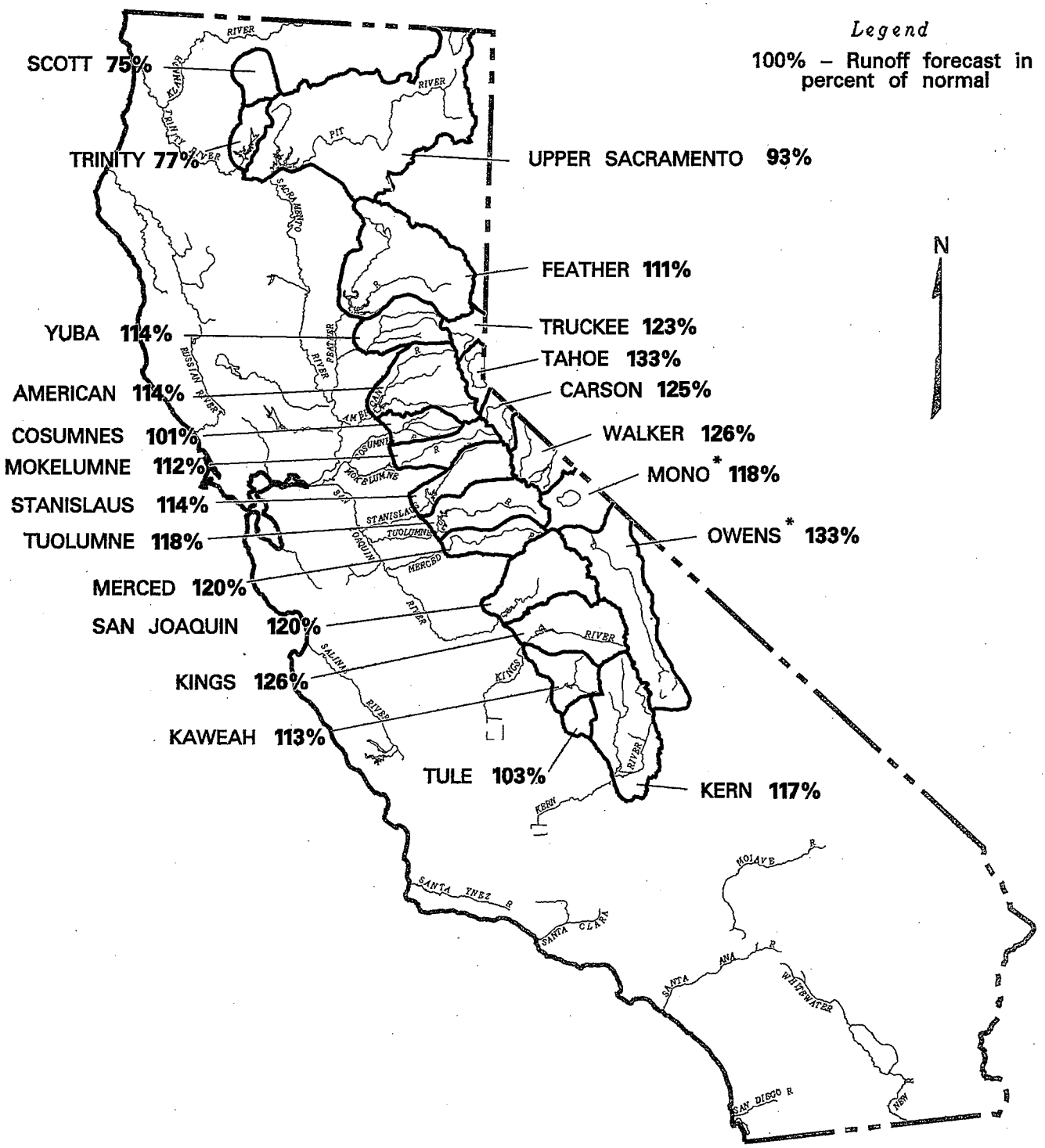
NC – North Coast
SF – San Francisco Bay
CC – Central Coast
SC – South Coast
SR – Sacramento River
SJ – San Joaquin
TL – Tulare Lake
NL – North Lahontan
SL – South Lahontan
CR – Colorado River–Desert

WATER YEAR IS OCTOBER 1 THROUGH SEPTEMBER 30

FORECAST OF APRIL – JULY

UNIMPAIRED SNOWMELT RUNOFF

May 1, 1996



* FORECAST BY DEPARTMENT OF WATER AND POWER, CITY OF LOS ANGELES

MAY 1, 1996 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet (1)					
	HISTORICAL			FORECASTS		
	50 Yr Avg (2)	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg	80 % Probability Range (1)
SACRAMENTO RIVER						
Upper Sacramento River						
Sacramento River at Shasta Lake	297	702	39	220	74	
McCloud River at Shasta Lake	411	850	185	360	88	
Pit River at Shasta Lake	1062	1796	480	980	92	
Total Inflow to Shasta Lake	1824	3189	726	1700	93	1,480 - 2,000
Sacramento River above Bend Bridge, near Red Bluff	2491	4674	943	2290	92	1,980 - 2,800
Feather River						
Feather River at Lake Almanor near Prattville	333	675	120	350	105	
North Fork at Pulga	1028	2416	243	1120	109	
Middle Fork near Clio (3)	86	518	4	70	81	
South Fork at Ponderosa Dam	110	267	13	120	109	
Total Inflow to Oroville Reservoir	1857	4676	392	2070	111	1,830 - 2,370
Yuba River						
North Yuba below Goodyears Bar	286	647	51	320	112	
Inflow to Jackson Mdws and Bowman Reservoirs	112	236	25	120	107	
South Yuba at Langs Crossing	233	481	57	240	103	
Yuba River at Smartville	1047	2424	200	1190	114	1,070 - 1,330
American River						
North Fork at North Fork Dam	262	716	43	290	111	
Middle Fork near Auburn	522	1406	100	600	115	
Silver Creek Below Camino Diversion Dam	173	386	37	200	116	
Total Inflow to Folsom Reservoir	1284	3074	229	1470	114	1,340 - 1,620
SAN JOAQUIN RIVER						
Cosumnes River at Michigan Bar	129	363	8	130	101	100 - 160
Mokelumne River						
North Fork near West Point (4)	437	829	104	460	105	
Total Inflow to Pardee Reservoir	465	1065	102	520	112	460 - 580
Stanislaus River						
Middle Fork below Beardsley Dam	334	702	64	380	114	
North Fork Inflow to McKays Point Dam	224	503	34	250	112	
Total Inflow to New Melones Reservoir	713	1710	116	810	114	730 - 900
Tuolumne River						
Cherry Creek and Eleanor Creek near Hetch Hetchy	322	727	97	360	112	
Tuolumme River near Hetch Hetchy	606	1392	153	700	116	
Total Inflow to New Don Pedro Reservoir	1200	2682	301	1420	118	1,300 - 1,550
Merced River						
Merced River at Pohono Bridge	362	888	80	430	119	
Total Inflow to Lake McClure	617	1587	123	740	120	670 - 810
San Joaquin River						
San Joaquin River at Mammoth Pool (5)	1014	2279	235	1170	115	
Big Creek below Huntington Lake (5)	95	264	11	110	116	
South Fork near Florence Lake (5)	202	511	58	230	114	
Total Inflow to Millerton Lake	1228	3355	262	1470	120	1,340 - 1,590
TULARE LAKE						
Kings River						
North Fork Kings River near Cliff Camp	239	565	50	290	121	
Total Inflow to Pine Flat Reservoir	1203	3114	273	1520	126	1,400 - 1,620
Kaweah River at Terminus Reservoir	284	814	61	320	113	280 - 340
Tule River at Success Reservoir	63	256	2	65	103	55 - 75
Kern River						
Kern River near Kernville	373	1203	83	450	121	
Total Inflow to Isabella Reservoir	461	1657	84	540	117	510 - 590

(1) See inside back cover for definition
(2) All 50 year averages are based on years 1941-1990 unless otherwise noted
(3) 44 year average based on years 1936-79
(4) 36 year average based on years 1936-71
(5) 45 year average based on years 1936-80

MAY 1, 1996 FORECASTS
WATER YEAR UNIMPAIRED RUNOFF

Unimpaired Runoff in 1,000 Acre-Feet (1)													
HISTORICAL			DISTRIBUTION								FORECASTS		
50 Yr Avg (2)	Max of Record	Min of Record	Oct Thru Jan*	Feb *	Mar *	Apr *	May	Jun	Jul	Aug & Sep	Water Year Forecasts	Pct of Avg	80 % Probability Range (1)
856	1,964	165											
1,244	2,353	577											
3,145	5,150	1,484											
5,987	10,796	2,479	1,530	1,630	1,050	690	490	290	230	420	6,330	106	6,060 - 6,700
8,664	17,180	3,294	2,360	2,260	1,530	970	650	390	280	520	8,960	103	8,580 - 9,600
780	1,269	366											
2,417	4,400	666											
219	637	24											
291	562	32											
4,617	9,492	994	1,015	1,300	850	880	720	320	150	185	5,420	117	5,160 - 5,750
564	1,056	102											
181	292	30											
379	565	98											
2,390	4,926	369	520	785	420	470	470	210	40	45	2,960	124	2,840 - 3,120
616	1,234	66											
1,070	2,575	144											
318	705	59											
2,736	6,381	349	560	840	560	560	570	280	60	30	3,460	126	3,330 - 3,620
385	1,253	20	64	135	110	65	45	15	5	1	440	114	410 - 470
626	1,009	197											
748	1,800	129	95	160	130	150	220	130	20	5	910	122	840 - 980
471	929	88											
1,150	2,952	155	150	275	215	255	320	190	45	20	1,470	128	1,370 - 1,570
461	1,147	123											
770	1,661	258											
1,882	4,430	383	220	350	290	325	525	440	130	30	2,310	123	2,170 - 2,450
461	1,020	92											
966	2,859	150	110	190	160	195	295	200	50	20	1,220	126	1,140 - 1,300
1,337	2,964	308											
112	298	14											
248	653	71											
1,776	4,642	362	160	230	220	335	510	470	155	70	2,150	121	2,000 - 2,280
284	607	58											
1,669	4,294	383	140	180	175	315	540	500	165	65	2,080	125	1,940 - 2,190
444	1,402	92	40	75	65	95	120	85	20	10	510	115	460 - 530
145	615	16	20	40	44	30	20	10	5	1	170	117	160 - 180
558	1,577	163											
716	2,309	175	110	90	100	145	180	145	70	40	880	123	840 - 940

* Indicates observed runoff

MAY 1, 1996 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF

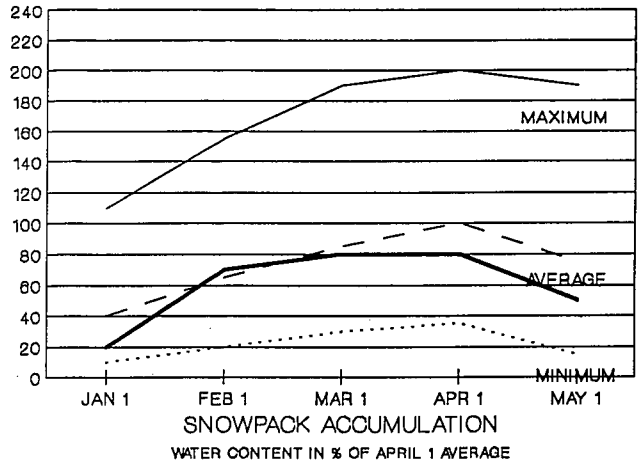
HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet (1)				
	HISTORICAL			FORECASTS	
	50 Yr Avg (2)	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg
NORTH COAST					
Trinity River					
Total Inflow to Lewiston Lake	653	1,593	80	540	83
Scott River					
Near Fort Jones	200	N/A	N/A	160	80
Klamath River					
Total inflow to Upper Klamath Lake (3)	510	655	320	N/A	N/A
NORTH LAHONTAN					
Truckee River					
Lake Tahoe to Farad accretions	268	713	58	330	123
Lake Tahoe Rise (assuming gates closed, in feet)	1.5	3.8	0.2	2.0	133
Carson River					
West Fork at Woodfords	54	131	12	70	130
East Fork near Gardnerville	186	407	43	230	124
Walker River					
West Fork near Coleville	148	330	35	185	125
East Fork near Bridgeport	63	209	7	80	127
SOUTH LAHONTAN					
Owens River					
Total tributary flow to Owens River (4)	233	579	96	308	133

(1) See inside back cover for definition

(2) All 50 year averages are based on years 1941-1990 unless otherwise noted

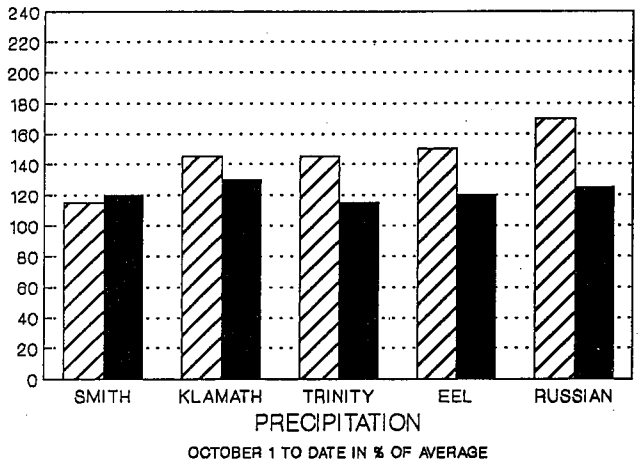
(3) Forecast by U.S. Natural Resources Conservation Service, Portland Oregon, for May through September.

(4) Forecast by Department of Water and Power, City of Los Angeles

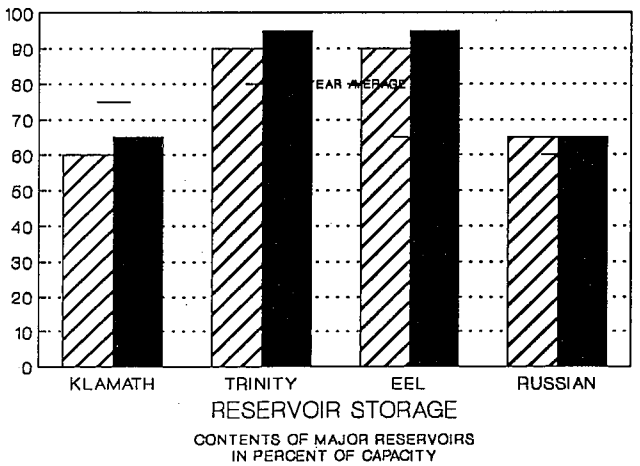


NORTH COAST REGION

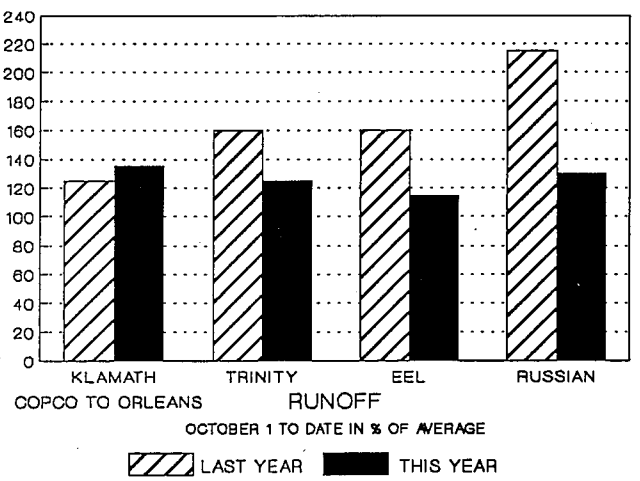
SNOWPACK - First of the month measurements made at 10 snow courses indicate an region wide snow water equivalent of 17.7 inches. This is 50 percent of the seasonal (April 1) average and about 65 percent of the May 1 average. Last year at this time the pack was holding 45.2 inches of water.



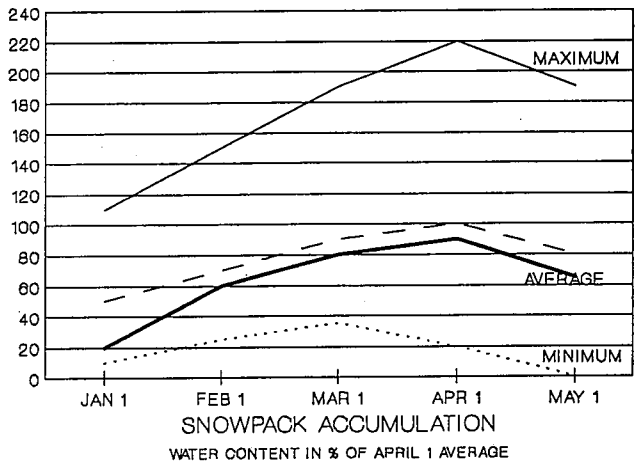
PRECIPITATION - Seasonal precipitation (October 1 through the end of April) on this region was 125 percent of normal. Precipitation last month was about 175 percent of the monthly average. Seasonal precipitation at this time last year stood at 145 percent of normal.



RESERVOIR STORAGE - First of the month storage in 7 reservoirs was 2.8 million acre-feet which is 110 percent of average. About 90 percent of available capacity was being used. Storage in these reservoirs at this time last year was 110 percent of average.

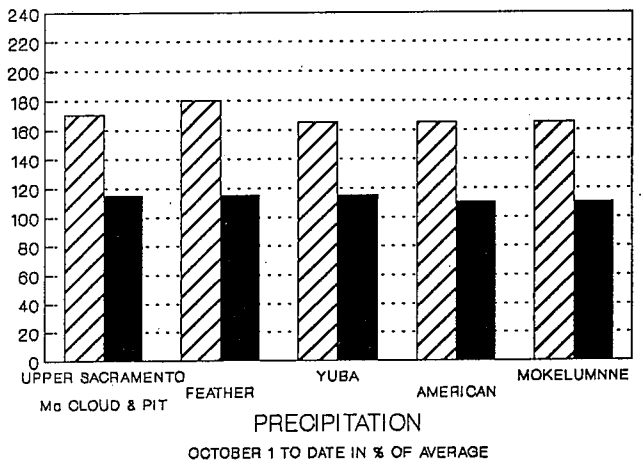


RUNOFF - Seasonal runoff of streams draining the region totaled nearly 14 million acre-feet which is 125 percent of average for this period. Last year, runoff for the same period was 155 percent of average.

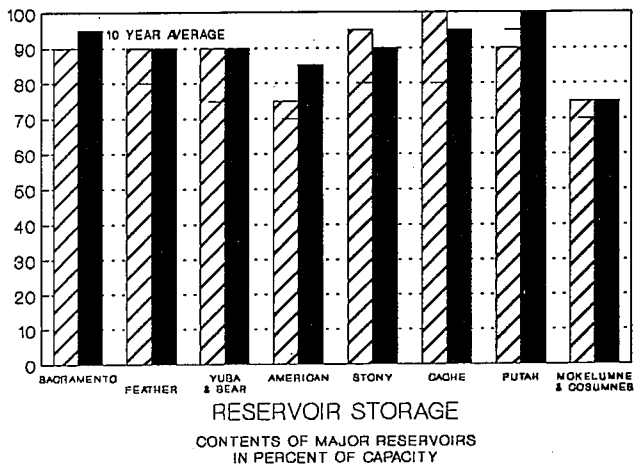


SACRAMENTO RIVER REGION

SNOWPACK - First of the month measurements made at 70 snow courses indicate a region-wide snow water equivalent of 22.2 inches. This is 65 percent of the average for this date and 80 percent of the seasonal average. Last year at this time, the snow pack was holding 53.1 inches of water.

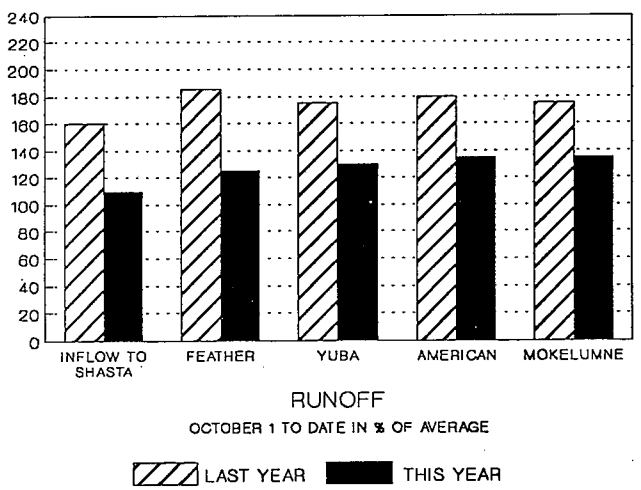


PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the Sacramento Region was 115 percent of normal. Precipitation last month was about 155 percent of the monthly average. Seasonal precipitation at this time last year stood at 175 percent of average.

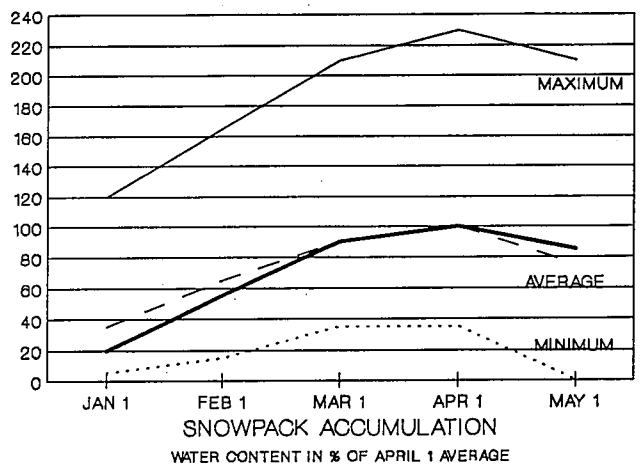


RESERVOIR STORAGE - First of the month storage in 43 reservoirs was 15 million acre-feet which is 115 percent of average. About 95 percent of available capacity was being used. Storage in these reservoirs was about 110 percent of average at this time last year.

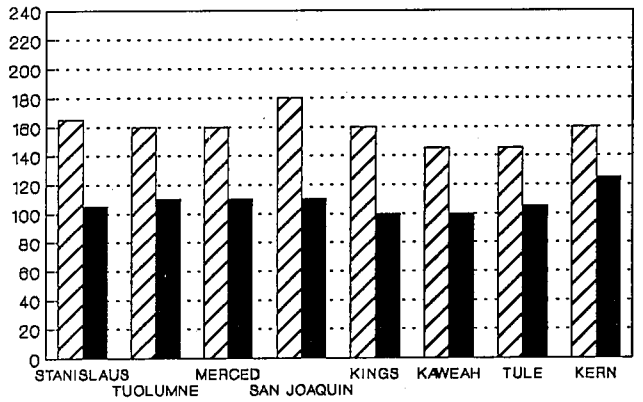
RUNOFF - Seasonal runoff from streams draining into the region totaled 16 million acre-feet which is 120 percent of average for this period. Last year runoff for the same period was 175 percent of average.



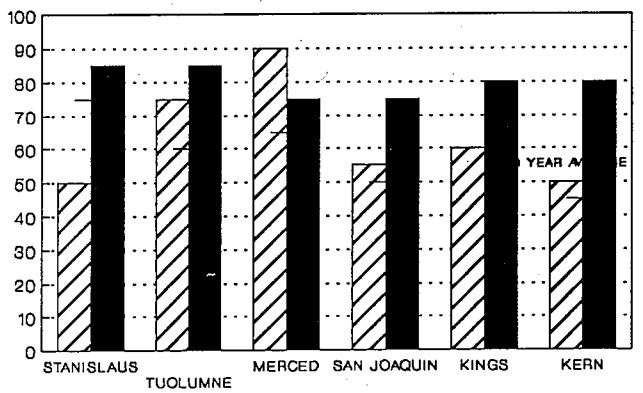
The Sacramento River Region 40-30-30 Water Supply Index is forecasted to be 9.7 million acre-feet assuming median meteorological conditions for the remainder of the year. This classifies the year as wet in the Sacramento-San Joaquin Delta according to the State Water Resources Control Board. This time last year, wet water supply conditions were forecast.



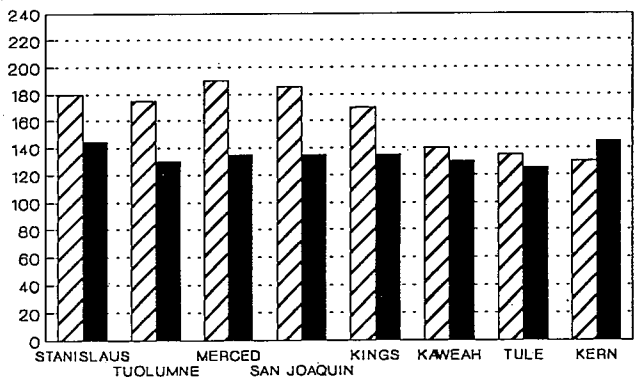
SNOWPACK ACCUMULATION
WATER CONTENT IN % OF APRIL 1 AVERAGE



PRECIPITATION
OCTOBER 1 TO DATE IN % OF AVERAGE



RESERVOIR STORAGE
CONTENTS OF MAJOR RESERVOIRS
IN PERCENT OF CAPACITY



RUNOFF
OCTOBER 1 TO DATE IN % OF AVERAGE

LAST YEAR THIS YEAR

SAN JOAQUIN RIVER AND TULARE LAKE REGIONS

SNOWPACK - First of the month measurements made at 60 San Joaquin Region snow courses indicate a region wide snow water equivalent of 29.6 inches which is 85 percent of the seasonal (April 1) average and 105 percent of the average for May 1. Last year at this time, the pack was holding 58.1 inches of water.

At the same time, 37 Tulare Lake Region snow courses indicated a region-wide snow water equivalent of 22.1 inches which is 80 percent of the seasonal (April 1) average and 100 percent of the May 1 average. Last year at this time, the Region was holding 34.1 inches of water.

PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the San Joaquin Region was 110 percent of normal. Precipitation last month was 100 percent of the monthly average. Seasonal precipitation at this time last year stood at 165 percent of normal.

Seasonal precipitation on the Tulare Lake Region was 110 percent of normal. Precipitation last month was 100 percent of the monthly average. Seasonal precipitation at this time last year stood at 160 percent of normal.

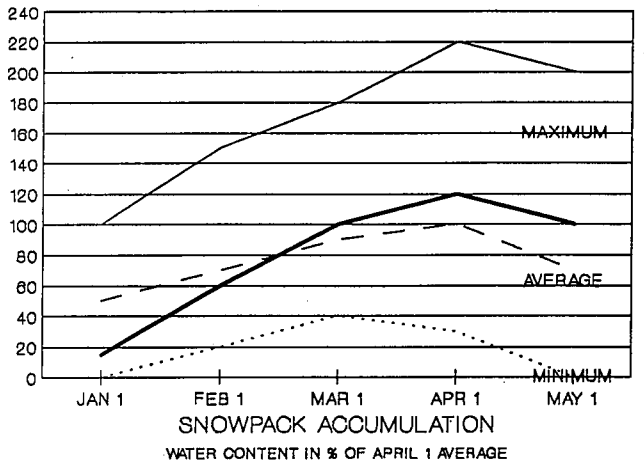
RESERVOIR STORAGE - First of the month storage in 33 San Joaquin Region reservoirs was 9.3 million acre-feet which is 125 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 110 percent of average.

First of the month storage in 6 Tulare Lake Region reservoirs was 1.6 million acre-feet which is 170 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 120 percent of average.

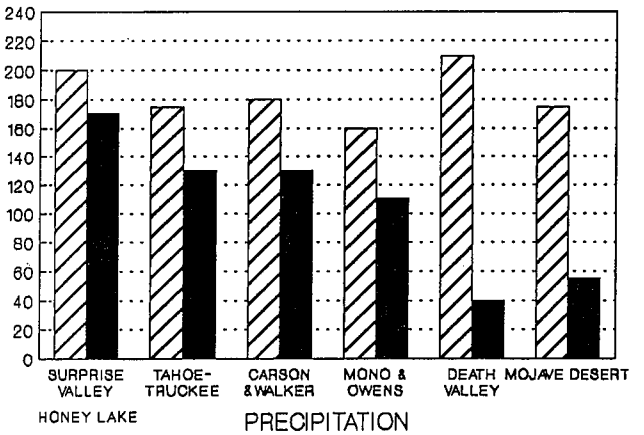
RUNOFF - Seasonal runoff of streams draining into the San Joaquin Region totaled 4.6 million acre-feet which is 135 percent of average for this period. Last year, runoff for this same period was 185 percent of average.

Seasonal runoff of streams draining into the Tulare Lake Region totaled 1.7 million acre-feet which is 135 percent of average for this period. Last year, runoff for this same period was 150 percent of average.

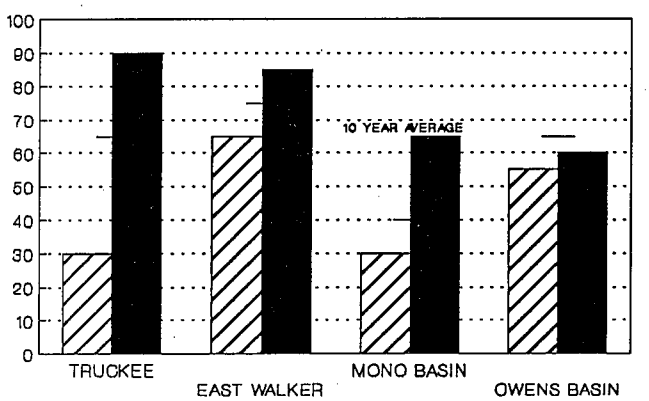
The San Joaquin Region 60-20-20 Water Supply Index is forecasted to be 4.1 MAF which classifies the year as wet.



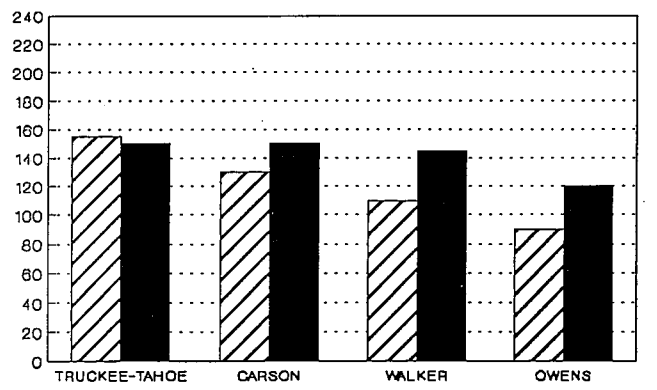
SNOWPACK ACCUMULATION
WATER CONTENT IN % OF APRIL 1 AVERAGE



PRECIPITATION
OCTOBER 1 TO DATE IN % OF AVERAGE



RESERVOIR STORAGE
CONTENTS OF MAJOR RESERVOIRS
IN PERCENT OF CAPACITY



RUNOFF
OCTOBER 1 TO DATE IN % OF AVERAGE

LAST YEAR THIS YEAR

NORTH AND SOUTH LAHONTAN REGION

SNOWPACK - First of the month measurements made at 9 North Lahontan snow courses indicate a region wide snow water equivalent of 33.5 inches which is 100 percent of the seasonal (April 1) average and 125 percent of the May 1 average. Last year at this time, the pack was holding 51 inches of water.

At the same time, 7 South Lahontan courses indicated a region-wide snow water equivalent of 24.0 inches which is 105 percent of the seasonal (April 1) average and 130 percent for this date. Last year at this time, the pack was holding 38.5 inches of water.

PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) over the North Lahontan region averaged 145 percent of normal. Precipitation last month was 160 percent of the monthly average. Seasonal precipitation at this time last year stood at 185 percent of normal.

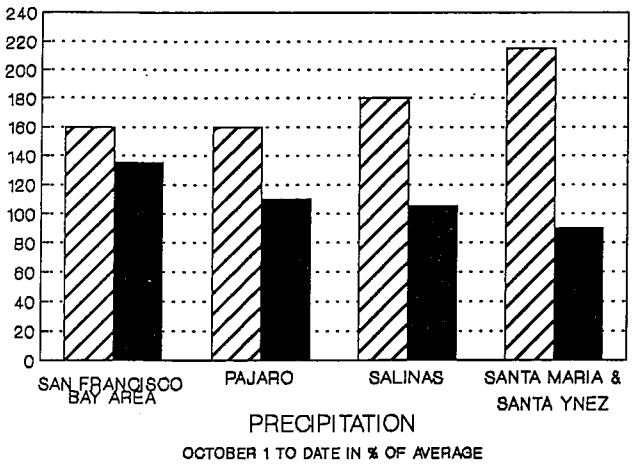
Seasonal precipitation over the South Lahontan region was about 80 percent of normal. Seasonal precipitation at this time last year stood at 175 percent of normal.

RESERVOIR STORAGE - First of the month storage in 5 North Lahontan reservoirs was 952 thousand acre-feet which is 145 percent of average. About 90 percent of available capacity was being used. Storage in these reservoirs at this time last year was 55 percent of average. Lake Tahoe was 5.3 feet above its natural rim.

First of the month storage in 8 South Lahontan reservoirs was 240 thousand acre-feet which is 90 percent of average. About 60 percent of available capacity was being used. Storage in these reservoirs at this time last year was 90 percent of average.

RUNOFF - Seasonal runoff of streams draining the North Lahontan region totaled 635 thousand acre-feet which is 150 percent of average for this period. Last year, runoff for this same period was 140 percent of average.

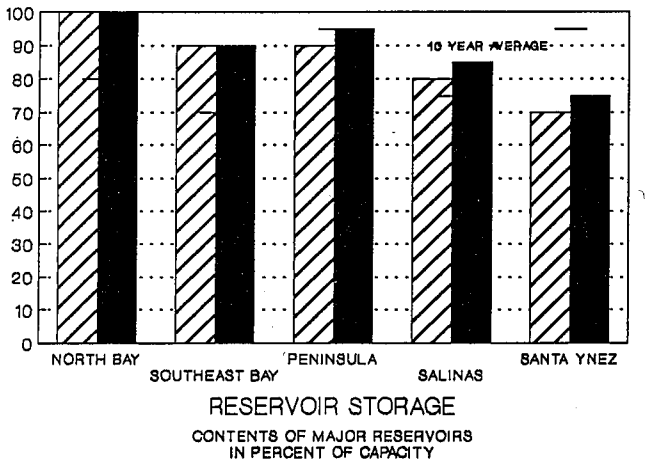
Seasonal runoff of the Owens River above Long Valley totaled 96 thousand acre-feet which is 120 percent of average for this period. Last year, runoff for this same period was 90 percent of average.



SAN FRANCISCO AND CENTRAL COAST REGIONS

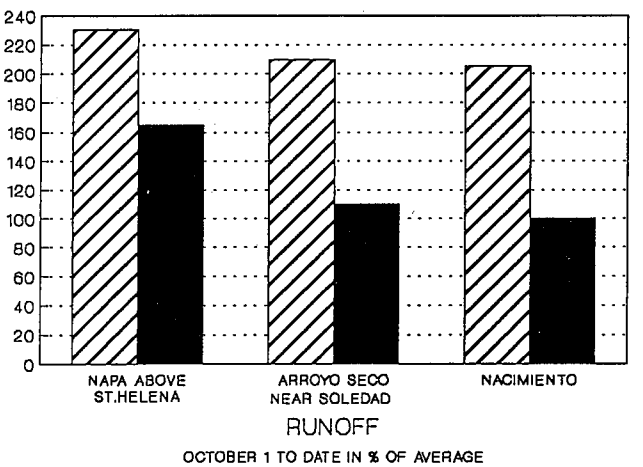
PRECIPITATION - Seasonal precipitation (October 1 through the end of last month) on the San Francisco Bay region was 135 percent of normal. Precipitation last month was 150 percent of the monthly average. Seasonal precipitation at this time last year stood at 160 percent of normal.

Seasonal precipitation on the Central Coast region averaged 105 percent of normal. Precipitation last month was 65 percent of the monthly average. Seasonal precipitation at this time last year stood at 185 percent of normal.



RESERVOIR STORAGE - First of the month storage in 18 major Bay area reservoirs was 632 thousand acre-feet which is 125 percent of average. About 90 percent of available capacity was being used. Storage in these reservoirs at this time last year was 125 percent of average.

First of the month storage in 6 major Central Coast reservoirs was 789 thousand acre-feet which is 115 percent of average. About 85 percent of available capacity was being used. Storage in these reservoirs at this time last year was 110 percent of average.



RUNOFF - Seasonal runoff of the Napa River in the San Francisco Bay region totaled 111 thousand acre-feet which is 165 percent of average for this period. Last year, runoff for this same period was 230 percent of average.

Seasonal runoff of selected Central Coast streams totaled 332 thousand acre-feet which is 105 percent of average for this period. Last year, runoff for this same period was 205 percent of average.

LAST YEAR THIS YEAR

SOUTH COAST AND COLORADO RIVER REGIONS

PRECIPITATION - Seasonal precipitation (October through the end of last month) on the South Coast was 75 percent of normal. April precipitation was 45% of average. Seasonal precipitation at this time last year was 175 percent of normal.

Seasonal precipitation in the Colorado River Region Desert area was 20 percent of normal, with no April precipitation. Seasonal precipitation at this time last year was 185 percent of the average.

RUNOFF - Seasonal runoff from selected South Coast streams totaled 49 thousand acre-feet which is 90 percent of average. Last year, runoff for the same period was 230 percent of average.

The April through July inflow to Lake Powell is forecasted to be 8.8 million acre-feet which will be 114 percent of normal.

RESERVOIR STORAGE - April 30 storage in 29 major South Coast region reservoirs was 1.7 million acre-feet or 125 percent of average. About 85 percent of available capacity was being used. Storage in these reservoirs at this time last year was 140 percent of average.

First of the month combined storage in Lakes Powell, Mead, Mohave and Havasu was about 44.4 million acre-feet which is 120 percent of average. About 85 percent of available capacity was being used. One year ago, these reservoirs were storing 105 percent of average.

UPPER COLORADO RIVER BASIN - The first of the month snowpack, according to the U.S. Soil Conservation Service reports was 120 percent of average and ranges from 90 percent in the Gunnison drainage to 145 percent in the Green.

CENTRAL VALLEY PROJECT

Based on May 1 conditions, Bureau of Reclamation water year forecasts for runoff into CVP reservoirs are: Trinity--95% of average, Shasta--104% of average, American--122% of average, Stanislaus--124% of average, San Joaquin above Friant--114% of average. As of April 30, 1996 CVP storage was 10.5 MAF which is a increase of 1.0 MAF compared to one year ago, and is approximately 122% of normal for that date.

The Bureau of Reclamation announced updated water allocations for the CVP on April 15, 1996. Agricultural contractors north of the Delta received 100% of their contract supply, while those south of the Delta received an increase to 85% of their contractual supply; urban contractors received 100% of contractual supply. Wildlife refuges received 100% of level II supplies. Sacramento River water rights settlement contractors and San Joaquin Exchange contractors remain at 100% supplies.

Friant Division allocations were increased on May 2, 1996 to 100% Class I, and 55% Class II supplies. Stanislaus River contractors received a special allocation this year and New Melones storage resulting from this year's runoff is predicted to be at its highest since 1986.

STATE WATER PROJECT

SWP deliveries to water supply contractors have been approved at 100 percent of 1996 requests.

The current forecasts for Lake Oroville show the lake reaching its maximum storage for the year about the first week of June. That level is expected to be close to the maximum storage capacity of 3.5 million acre feet.

MAJOR WATER DISTRIBUTION PROJECTS
RESERVOIR STORAGE

(AVERAGES BASED ON PERIOD RECORD)

RESERVOIR	CAPACITY 1,000 AF	AVERAGE STORAGE 1,000 AF	STORAGE AT END OF APRIL 1995 1,000 AF	1996 1,000 AF	PERCENT AVERAGE	PERCENT CAPACITY
STATE WATER PROJECT						
Lake Oroville	3,538	2,961	3,159	3,243	110%	92%
San Luis Reservoir (SWP)	1,062	990	1,072	972	98%	92%
Lake Del Valle	77	39	40	40	103%	52%
Lake Silverwood	73	67	71	39	58%	53%
Pyramid Lake	171	164	160	167	102%	97%
Castaic Lake	324	282	312	310	110%	96%
Perris Lake	132	115	118	124	107%	94%
CENTRAL VALLEY PROJECT						
Clair Engle Lake	2,448	2,080	2,262	2,295	110%	94%
Lake Shasta	4,552	4,096	4,165	4,313	105%	95%
Whiskeytown Lake	241	231	230	238	103%	99%
Folsom Lake	977	739	757	782	106%	80%
New Melones Reservoir	2,420	1,549	1,184	2,040	132%	84%
Millerton Lake	520	316	347	450	142%	86%
San Luis Reservoir (CVP)	971	854	955	914	107%	94%
COLORADO RIVER PROJECT						
Lake Mead	26,159	19,574	20,099	21,882	112%	84%
Lake Powell	25,002	15,098	16,787	20,186	134%	81%
Lake Mohave	1,810	1,634	1,741	1,707	104%	94%
Lake Havasu	619	579	597	581	100%	94%
EAST BAY MUNICIPAL UTILITY DISTRICT						
Pardee Reservoir	210	180	207	201	111%	96%
Camanche Reservoir	417	268	276	247	92%	59%
East Bay (4 reservoirs)	151	132	145	144	109%	95%
CITY AND COUNTY OF SAN FRANCISCO						
Hetch-Hetchy Reservoir	360	151	160	277	183%	77%
Cherry Lake	268	135	193	228	169%	85%
Lake Eleanor	26	13	27	26	192%	98%
South Bay/Peninsula (4 reservoirs)	225	176	214	226	129%	100%
CITY OF LOS ANGELES (D.W.P.)						
Lake Crowley	183	127	110	122	96%	67%
Grant Lake	48	25	19	46	185%	97%
Other Aqueduct Storage (6 res.)	95	75	63	54	72%	57%

DEPARTMENT OF WATER RESOURCES - CALIFORNIA COOPERATIVE SNOW SURVEYS
TELEMETERED SNOW WATER EQUIVALENTS - MAY 1, 1996

BASIN NAME / STATION NAME	AGENCY	ELEV FEET	APR 1 AVG	TODAY	INCHES OF WATER EQUIVALENT PERCENT OF APR 1	24 HRS AGO	1 WEEK AGO
TRINITY RIVER							
Peterson Flat	PET	7150	29.2	15.2	52%	16.8	19.8
Red Rock Mountain	RRM	6700	39.6	29.4	74%	31.4	38.6
Bonanza King	BNK	6450	40.5	----	----	----	----
Shimmy Lake	SHM	6200	40.3	----	----	----	----
Middle Boulder #3	MB3	6200	28.3	6.5	23%	7.8	11.8
Highland Lakes	HIG	6030	29.9	0.0r	0%	0.0R	3.7
Scotts Mountain	SCT	5900	16.0	1.2	8%	1.7	6.5
Mumbo Basin	MUM	5700	22.4	1.2	5%	1.7	8.6
Big Flat	BFL	5100	15.8	5.5	35%	7.2	13.9
SACRAMENTO RIVER							
Cedar Pass	CDP	7100	18.1	15.1	83%	16.4	21.0
Blacks Mountain	BLA	7100	12.7	----	----	----	----
Sand Flat	SDF	6750	42.4	----	----	----	----
Medicine Lake	MED	6700	32.6	15.1	46%	16.0	19.1
Adin Mountain	ADM	6350	13.6	5.3	39%	6.5	11.3
Snow Mountain	SNM	5950	27.0	7.4r	27%	9.1e	16.0e
Slate Creek	SLT	5600	29.0	1.1	4%	3.2	10.1
Stouts Meadow	STM	5400	36.0	13.2	37%	14.5	20.9
FEATHER RIVER							
Kettlerock	KTL	7300	25.5	14.8	58%	15.0	34.6
Grizzly	GRZ	6900	29.7	24.2	82%	25.4	29.6
Pilot Peak	PLP	6800	52.6	30.8	59%	32.0	37.1
Gold Lake	GOL	6750	36.5	41.5	114%	42.2	44.9
Humbug	HMB	6500	28.0	39.4	141%	39.4	39.0
Rattlesnake	RTL	6100	14.0	1.1	8%	2.2	8.5
Bucks Lake	BKL	5750	44.7	28.9	65%	30.5	35.3
Four Trees	FOR	5150	20.0	0.0r	0%	0.0r	1.4
YUBA & AMERICAN RIV							
Lake Lois	LOS	8800	39.5	62.7	159%	62.7r	70.6
Schneiders	SCN	8750	34.5	46.4	134%	47.0	50.0
Caples Lake Course	CAP	7800	30.9	27.4	89%	28.3	33.4
Alpha	ALP	7600	35.9	28.7	80%	30.4	35.0
Beta	BTA	7600	35.9	31.1	87%	32.2	36.5
Forni Ridge	FRN	7600	37.0	27.5	74%	29.0	33.0
Silver Lake	SIL	7100	22.7	16.7	73%	18.0	23.6
Cent Sierra Snow Lab	CSL	6950	33.6	22.2	66%	23.5	29.2
Huysink	HYS	6600	42.6	31.2	73%	32.0	35.7
Van Vleck	VVL	6700	35.9	30.5	85%	32.3	38.7
Robbs Saddle	RBB	5900	21.4	9.2	43%	10.9	18.7
Greek Store	GKS	5600	21.0	8.2	39%	10.1	16.0e
Blue Canyon	BLC	5280	9.0	0.0r	0%	0.0R	0.3
Robbs Powerhouse	RBP	5150	5.2	0.0r	0%	0.0R	0.0R
MOKEL. & STANIS. RIV							
Deadman Creek	DDM	9250	37.2	31.0	83%	30.7	36.7
Highland Meadow	HHM	8800	47.9	46.2	96%	47.0	50.9
Gianelli Meadow	GNL	8350	55.5	37.9	68%	39.3	46.0e
Lower Relief Valley	REL	8100	41.2	33.1	80%	33.8	41.0
Blue Lakes	BLK	8000	33.1	34.2	103%	34.4	36.5
Mud Lake	MDL	7900	44.9	50.5	112%	51.3	54.6
Stanislaus Meadow	SLM	7750	47.5	36.7	77%	37.7	43.2
Bloods Creek	BLD	7200	35.5	24.7	70%	25.9	31.0
Black Springs	BLS	6500	32.0	18.0	56%	19.2	25.4
TUOLUMNE & MERCED R.							
Dana Meadows	DAN	9800	27.7	26.8	97%	27.5	31.4
Slide Canyon	SLI	9200	41.1	45.2	110%	46.5	50.4
Snow Flat	SNF	8700	44.1	----	----	----	----
Tuolumne Meadows	TUM	8600	22.6	13.1	58%	14.0	18.2
Horse Meadow	HRS	8400	48.6	45.3r	93%	46.4r	51.0
Ostrander Lake	STR	8200	34.8	26.8	77%	28.1	33.3
Paradise	PDS	7650	41.3	37.2	90%	38.5	43.1
Gin Flat	GIN	7050	34.2	13.8	40%	15.0	20.4
Lower Kibbie	KIB	6600	27.4	4.1	15%	6.1	13.9
SAN JOAQUIN RIVER							
Volcanic Knob	VLC	10100	30.1	31.4	104%	32.0	34.0
Agnew Pass	AGP	9450	32.3	----	----	----	24.2
Kaiser Point	KSP	9200	37.8	26.3	70%	27.7	33.2
Green Mountain	GRM	7900	30.8	11.9	39%	13.5	20.4

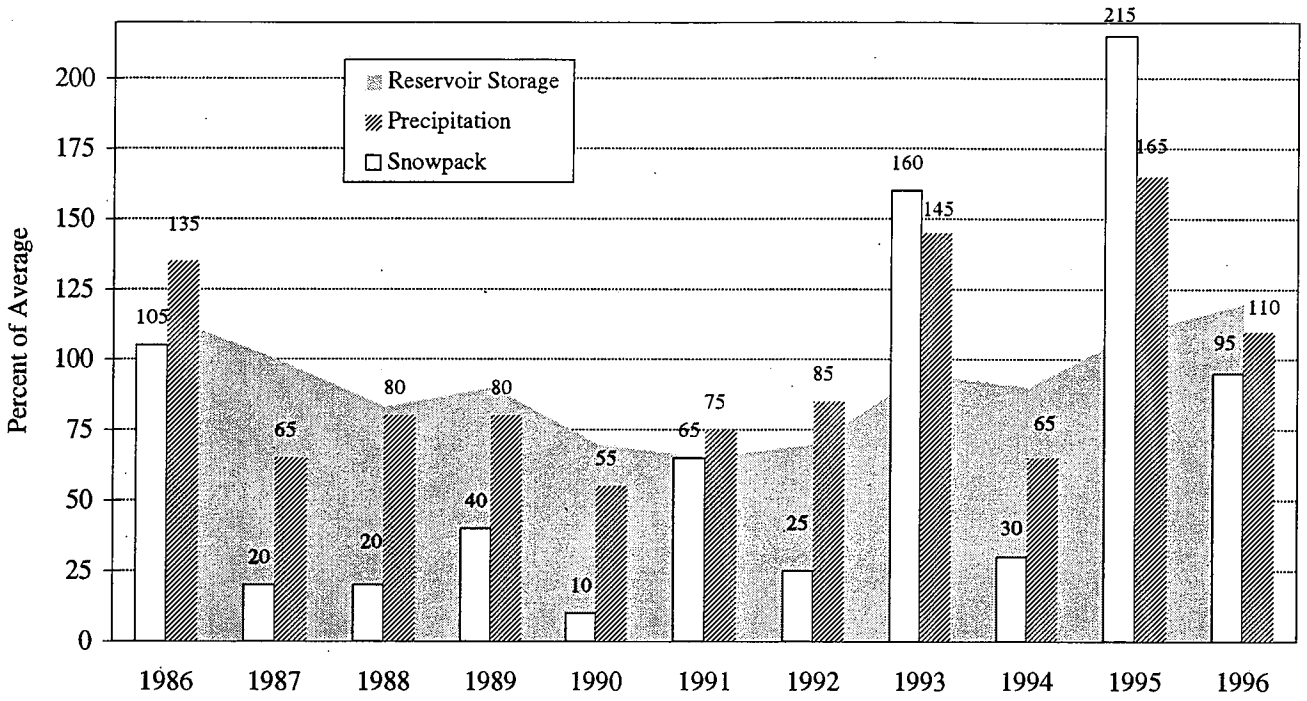
DEPARTMENT OF WATER RESOURCES - CALIFORNIA COOPERATIVE SNOW SURVEYS
TELEMETERED SNOW WATER EQUIVALENTS - MAY 1, 1996

BASIN NAME STATION NAME	AGENCY	ELEV FEET	APR 1 AVG	TODAY	INCHES OF WATER EQUIVALENT PERCENT OF APR 1	24 HRS AGO	1 WEEK AGO
Tamarack Summit	TMR	7600	30.5	14.0	46%	15.4	22.4
Chilkoot Meadow	CHM	7150	38.0	21.2	56%	22.5	29.0
Huntington Lake	HNT	7000	20.1	----	----	----	----
Graveyard Meadow	GRV	6900	18.8	----	----	----	----
Poison Ridge	PSR	6900	28.9	0.0r	0%	0.9	8.5
KINGS RIVER							
Bishop Pass	BSH	11200	34.0	32.0	94%	31.4	38.5
Charlotte Lake	CRL	10400	27.5	28.8	105%	30.0	33.2
State Lakes	STL	10400	29.0	----	----	----	----
Mitchell Meadow	MTM	10375	32.9	----	----	----	39.1
Blackcap Basin	BCB	10300	34.3	35.8e	104%	37.0e	39.0e
Upper Burnt Corral	UBC	9700	34.6	41.8	121%	43.1	44.4
West Woodchuck Mdw	WWC	9100	32.8	27.6	84%	28.6	33.5
Big Meadows	BIM	7600	25.9	11.6	45%	12.7	16.8
KAWEAH & TULE RIVERS							
Quaking Aspen	QUA	7200	21.0	0.0r	0%	0.0r	5.6
Giant Forest	GNF	6400	10.0	----	----	----	----
KERN RIVER							
Upper Tyndall Creek	UTY	11500	27.7	28.0	101%	28.8	31.6
Crabtree	CBT	10700	19.8	13.5	68%	14.2	18.3
Chagoopa Plateau	CHP	10300	21.8	17.0	78%	18.3	23.5
Pascoes	PSC	9150	24.9	29.0	116%	30.0	36.3
Tunnel	TUN	8950	15.6	0.0r	0%	0.0r	6.1
Wet Meadow	WTM	8900	30.3	8.1	27%	8.5	14.8
Casa Vieja Mdw	CSV	8400	20.9	----	----	----	----
Beach Meadow	BCH	7650	11.0	0.0r	0%	0.0r	0.0r
SURPRISE VALLEY AREA							
Dismal Swamp	DSS	7050	29.2	47.9	164%	47.9	47.3
TRUCKEE RIVER							
Mount Rose Ski Area	MSK	8850	38.5	56.1	146%	56.6	58.3
Independence Lake	IDP	8450	41.4	44.9	108%	44.9	46.0
Big Meadows	BMW	8700	25.7	22.9	89%	23.9	28.9
Independence Camp	IDC	7000	21.8	6.5	30%	7.8	13.9
Independence Creek	INN	6500	12.7	0.0	0%	0.3	6.9
LAKE TAHOE BASIN							
Heavenly Valley	HVN	8800	28.1	25.4	90%	26.8	32.9
Hagans Meadow	HGM	8000	16.5	10.2	62%	10.2r	15.8
Marlette Lake	MRL	8000	21.1	25.6	121%	26.2	31.8
Echo Peak	EP5	7800	39.5	34.9	88%	36.1	43.5
Rubicon No. 2	RP2	7500	29.1	29.7	102%	30.9	34.2
Ward Creek No. 3	WC3	6750	39.4	27.0	69%	27.9	31.6
Fallen Leaf Lake	FLL	6300	7.0	0.0	0%	0.0	0.0R
CARSON RIVER							
Ebbetts Pass	EBB	8700	38.8	37.9	98%	39.3	45.5
Poison Flat	PSN	7900	16.2	5.3	33%	6.4	12.0
WALKER RIVER							
Virginia Lakes Ridge	VRG	9200	20.3	20.6	101%	21.0	23.4
Lobdell Lake	LBD	9200	17.3	14.0	81%	15.1	20.1
Sonora Pass Bridge	SPS	8750	26.0	23.3	90%	23.9	28.6
Leavitt Meadows	LVM	7200	8.0	0.0r	0%	0.0r	1.9
OWENS RIVER/MONO LK.							
Gem Pass	GEM	10750	31.7	41.2	130%	41.2	45.1
Sawmill Meadow	SWM	10300	19.4	4.6r	24%	4.6	20.9
Cottonwood Lakes	CWD	10200	11.6	7.6	65%	8.3	13.2
Big Pine #3	BGP	9800	17.9	12.5	70%	13.1	17.7
South Lake	SLK	9600	16.0	16.4	103%	17.2	21.1
Mammoth Pass (rp)	MHP	9500	42.4	40.4	95%	41.4	45.4
Rock Creek	RCK	10000	14.0	7.8	56%	9.3	12.9

NORMAL SNOWPACK ACCUMULATION EXPRESSED AS A PERCENT OF APRIL 1ST AVERAGE

AREA	JANUARY	FEBRUARY	MARCH	APRIL	MAY
CENTRAL VALLEY NORTH	45	70	90	100	75
CENTRAL VALLEY SOUTH	45	65	85	100	80
NORTH COAST	40	60	85	100	80

May 1 Statewide Conditions



❄❄❄❄❄ SNOWLINES ❄❄❄❄

The water supply and snow surveys community will deeply miss Art Crook who passed away following surgery at the end of April. Art lived in the Portland, OR area and had worked as Data Collection Group Leader for the Soil Conservation Service. His work mostly involved snow surveys. Contributions may be made to the:

Western Snow Conference Memorial Fund

1161 River St., Suite 340

Boise, ID 83702

RESERVOIR STORAGE is the highest amount ever reported for May 1. Unlike previous years, 1983 for example, this year's snowpack was not enough above average to warrant maintaining large amounts of storage in anticipation of high runoff volumes later in the season. As the runoff season progresses reservoir storage for 1996 will decline below those years which had an abundant snowpack.

DATES being considered for the 1996 Cooperator's Meeting are November 21 and 22. The most likely location will be in Sonora,CA.

SNOWPACK - Snow data is a major index of spring and summer runoff from Sierra Nevada watersheds. April 1 data historically reflects the magnitude of the snowpack at or near the maximum seasonal accumulation. Averages are based on April 1 data for the period 1941-1990 (50 years, except for data sites established after 1941).

PRECIPITATION - Averages are based on April 1 data for the period 1941-1990 (50 years, except for data sites established after 1941).

RUNOFF AND FORECASTS - Runoff data and runoff forecasts are shown as unimpaired values. Unimpaired runoff represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds. Forecast of runoff assumes median conditions subsequent to the date of forecast.

Runoff probability ranges are statistically derived from historical data. The 80 percent probability range is comprised of the 90 percent exceedence level value and the 10 percent exceedence level value. This means that actual runoff should fall within the stated limits eight times out of ten.

Runoff averages for most streams are based on the period 1941-1990. For more details contact California Cooperative Snow Surveys, P.O. Box 942836, Sacramento, CA 94236-0001, (916) 574-2635 or gridley@water.ca.gov.

INDICES OF WATER AVAILABILITY

The Sacramento River Hydrologic Region 40-30-30 Water Supply Index. The *40-30-30* represent the percentage weight given to the three variables in the formula for the index. The first variable is the forecasted unimpaired runoff from April through July (*40 Percent*). The second variable is the forecasted unimpaired runoff from October through March (*30 Percent*). The third variable is the previous year's index with a cap to account for required flood control releases during wet years. The basins used in this computation are those used in the Sacramento River water year unimpaired runoff.

The Sacramento River water year unimpaired runoff is the sum of: Sacramento River above Bend Bridge, Feather River Inflow to Lake Oroville, Yuba River near Smartville and American River Inflow to Folsom Lake.

The San Joaquin River Hydrologic Region 60-20-20 Water Supply Index. In a similar manner, the *60-20-20* represents the percentage weights on April through July runoff, October through March runoff and previous year's index. The San Joaquin River unimpaired runoff is the sum of: Stanislaus River Inflow to New Melones Lake, Tuolumne River Inflow to New Don Pedro Reservoir, Merced River Inflow to Lake McClure and San Joaquin River Inflow to Millerton Lake.

Prior month unimpaired runoff is the sum of the runoff in the eight major rivers used in the two above indices.

While it looks like a giant wedding cake it is the first step in a "snow pillow" dig out to validate the accuracy of a snow sensor. June, 1995 at the Central Sierra Snow Lab

Photo by Dave Hart, DWR

State of California – The Resources Agency
DEPARTMENT OF WATER RESOURCES
P.O. Box 942836
Sacramento, CA 94236-0001

First Class